

ABSTRACT OF THE DISCLOSURE

Disclosed herein is a head actuator for a head provided so as to accessible to a disk-shaped recording medium rotating above a base. The head actuator includes a main actuator driven so as to rotate above the base, and a microactuator driven so as to swing relative to the main actuator. The head is mounted on the microactuator. The main actuator and the microactuator are controlled so that the head is moved in a substantially radial direction of the recording medium and positioned over a desired track of the recording medium. A primary resonant frequency of mechanical characteristics of the main actuator is set to 100 Hz or higher. This setting may be achieved by increasing a preload in a ball bearing of the main actuator, for example, to thereby increase the rigidity of a nonlinear spring of the ball bearing. In the case that a disturbance acts on the main actuator, the above setting allows a reduction in displacement of the microactuator required for positioning of the head over the desired track.